

**TRANSDUCING HEAD INCLUDING A MAGNETIC ELEMENT EXHIBITING  
VARYING PERMEABILITY DESIGN WITH LOW ERASURE FIELD**

**ABSTRACT OF THE DISCLOSURE**

A transducing head has a main pole and at least one magnetic element (such as a return pole or a shield) which provides a potential return path for a magnetic field produced by the main pole. The magnetic element is spaced from the main pole. The magnetic element has a first edge closest to the main pole and a second edge furthest from the main pole. Permeability of the magnetic element increases from the first edge to the second edge.